

APPLICABLE CODES, REGULATIONS, & STANDARDS

- A. THE 2023 FLORIDA BUILDING CODE, 8TH EDITION
B. ASCE/SEI 7-22: MINIMUM DESIGN LOADS ON BUILDINGS AND OTHER STRUCTURES
C. ACI 318-19: BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
D. AISC STEEL CONSTRUCTION MANUAL (15TH EDITION)
E. AWS D1.1: STRUCTURAL WELDING

1. THESE PLANS BELONG EXCLUSIVELY TO THE STRUCTURE, INCLUDING MAIN WIND FORCE RESISTING SYSTEM (MFRS), COMPONENTS AND CLADDING (G&C), AND BASE RAIL ANCHORAGE. OTHER DESIGN ISSUES, INCLUDING BUT NOT LIMITED TO PROPERTY SET BACKS, ELECTRICAL, PLUMBING, INGRESS/EGRESS, FINISH FLOOR SLOPES AND ELEVATIONS, OR OTHER LOCAL ZONING REQUIREMENTS ARE THE LIABILITY OF OTHERS.

2. THESE STRUCTURES ARE ENGINEERED AS CAPABLE OF SUPPORTING DEAD LOAD OF THE STRUCTURE AND LIVE AND WIND LOADS. UPGRADES NOT SPECIFICALLY ADDRESSED HEREIN, SUCH AS WINDOWS, DOORS, OR ANOTHER COMPONENT NOT LISTED IN THE FLORIDA BUILDING CODE APPROVED PRODUCT LIST, AND NOT PROVIDED AND INSTALLED BY TUBULAR BUILDING SYSTEMS, WHICH CAUSE ADDITIONAL LOADS ON THE STRUCTURE SHALL BE AT THE OWNERS RISK. FLORIDA ENGINEERING LLC, SHALL NOT BE RESPONSIBLE FOR FAILURE OR STRUCTURAL DAMAGE DUE TO THE EXTRA LOAD.

3. LOW ULTIMATE WIND SPEED 105 TO 140 MPH (NOMINAL WIND SPEED 81 TO 108 MPH); MAXIMUM RAFTER/POST AND END POST SPACING = 5.0 FEET.
4. HIGH ULTIMATE WIND SPEED 141 TO 170 MPH (NOMINAL WIND SPEED 109 TO 132 MPH); MAXIMUM RAFTER/POST AND END POST SPACING = 4.0 FEET.

5. ALL STEEL TUBING SHALL BE 30 KSI GALVANIZED STEEL. ALL FASTENERS SHALL BE ZINC COATED HARDWARE.

6. SPECIFICATIONS APPLICABLE TO 26 GAUGE METAL PANELS FASTENED DIRECTLY TO 2 1/2" x 2 1/2" - 14 GAUGE TUBE STEEL (T5) FRAMING MEMBERS FOR VERTICAL PANELS. 26 GAUGE METAL PANELS SHALL BE FASTENED TO 18 GAUGE HAT CHANNELS (UNLESS OTHERWISE NOTED).

7. FASTENERS CONSIST OF #12-14 x 3/4" SELF DRILLING FASTENER (SDF), USE CONTROL SEAL WASHER WITH EXTERIOR FASTENERS SPECIFICATIONS APPLICABLE ONLY FOR MEAN ROOF HEIGHT OF 20 FEET OR LESS, AND ROOF SLOPES OF 14° (3:12 PITCH) OR LESS SPACING REQUIREMENTS FOR OTHER ROOF HEIGHTS AND/OR SLOPES MAY VARY.

8. AVERAGE FASTER SPACING ON CENTERS ALONG RAFTERS OR PURLINS, AND POSTS, INTERIOR = 9" OR END = 6" (MAX.).

9. WIND FORCES GOVERN OVER SEISMIC FORCES. SEISMIC PARAMETERS ANALYZED ARE:
SOIL SITE CLASS = D
RISK CATEGORY I/II/III
R = 3.25 Ie = 1.0
Sds = 0.087 g V = CSW
Sdi = 0.084 g

10. GROUND ANCHORS SHALL BE INSTALLED THROUGH BASE RAIL WITHIN 6" OF EACH RAFTER COLUMN ALONG SIDES.

11. GROUND ANCHOR (SOIL NAILS) CONSIST OF #5 REBAR W/ WELDED NUT X 30" LONG IN SUITABLE SOIL CONDITIONS MAY BE USED FOR LOW (4-108 MPH NOMINAL) WIND SPEEDS ONLY. OPTIONAL ANCHORAGE MAY BE USED IN SUITABLE SOILS AND MUST BE USE IN UNSUITABLE SOILS AS NOTED.

12. MIN. LAP REQUIREMENT FOR REBAR IN FOOTER IS 25".

13. SOIL TO BE COMPACTED TO 95% OF ITS MAXIMUM DRY DENSITY, AT OPTIMUM MOISTURE CONTENT, IN ACCORDANCE WITH ASTM D1557-93

14. PRIOR TO PLACING CONCRETE, TREAT THE ENTIRE SUBSURFACE AREA FOR TERMITES IN COMPLIANCE WITH THE FBC, FOR RISK CATEGORY II, III, & IV STRUCTURES ONLY.

15. ALL OPEN AREAS OF CONCRETE OUTSIDE OF THE PROPOSED STRUCTURE SHALL BE DESIGNED TO SLOPE AWAY FROM THE STRUCTURE.

16. A LANDING OF MIN. 36" WIDTH IN THE DIRECTION OF TRAVEL SHALL BE PROVIDED AT THE EXTERIOR DOORS. SLOPE OF LANDING NOT TO EXCEED 1/4"=1". LANDING LEVEL NOT TO BE LOWER THAN 1-1/2" (FOR EGRESS DOORS) & 7-3/4" (FOR OTHER EXTERIOR DOORS) BELOW THE TOP OF THRESHOLD.

DESIGN DATA

DESIGN CRITERIA: RISK CATEGORY: OCCUPANCY CLASSIFICATION: CONSTRUCTION TYPE: DEFLECTION LIMIT: ULTIMATE DESIGN WIND SPEED (MPH) VULT = NOMINAL DESIGN WIND SPEED (MPH) VASD = EXPOSURE CATEGORY: MEAN BUILDING HEIGHT (FT) = MINIMUM BUILDING PLAN DIMENSION (FT) = END ZONE DIMENSION (FT) a = ROOF PITCH (IN 12): ROOF STYLE: OCCUPANCY CLASSIFICATION: DEAD LOAD (DUE TO SELF-WEIGHT) = ROOF LIVE LOAD = GROUND SNOW LOAD =	ASCE/SEI 7 II S2 I/B L/240 120 93 C 11.50 24.00 3.00 GABLE 3 PARTIALLY ENCLOSED 4 PSF 12 PSF 4 PSF
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ADJUSTED C & C WIND PRESSURES (ASD) (PSF)	
EFFECTIVE WIND AREA FOR ROOF (SQ. FT.):	60.00
ZONE 1' (POSITIVE) =	NA
ZONE 1' (NEGATIVE) =	NA
ZONE 1' (OVERHANG) =	NA
ZONE 1 (POSITIVE) =	15.6
ZONE 1 (NEGATIVE) =	-28.2
ZONE 1 (OVERHANG) =	-42.0
ZONE 2 (POSITIVE) =	15.6
ZONE 2 (NEGATIVE) =	-35.8
ZONE 2 (OVERHANG) =	-49.5
ZONE 3 (POSITIVE) =	15.6
ZONE 3 (NEGATIVE) =	-44.0
ZONE 3 (OVERHANG) =	-57.9
EFFECTIVE WIND AREA FOR WALLS (SQ. FT.):	50.00
ZONE 4 (POSITIVE) =	22.9
ZONE 4 (NEGATIVE) =	-24.5
ZONE 5 (POSITIVE) =	22.9
ZONE 5 (NEGATIVE) =	-27.3

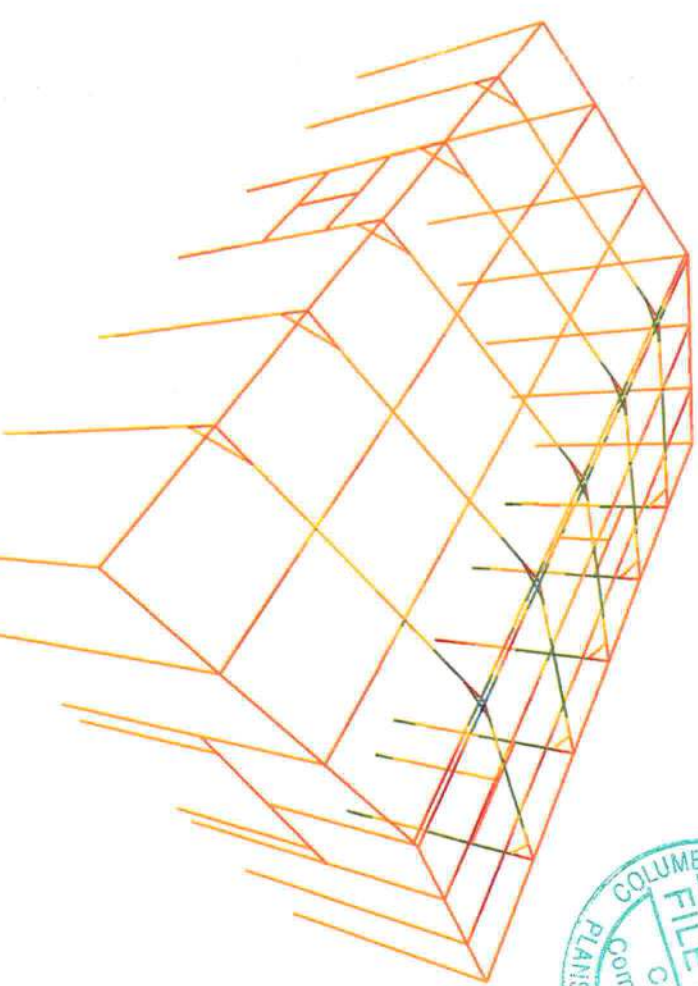
CONTRACTOR TO PROVIDE BUILDING CODE APPROVED PRODUCTS TO MEET OR EXCEED THE DESIGN PRESSURES AS TABULATED.

ADJUSTED C & C WIND PRESSURES (ASD) (PSF) FOR OPENINGS	
SWING DOOR	
EFFECTIVE WIND AREA (SQ. FT.) =	21.00
ZONE 4 (POSITIVE) =	23.9
ZONE 4 (NEGATIVE) =	-25.5
ZONE 5 (POSITIVE) =	23.9
ZONE 5 (NEGATIVE) =	-29.4
ROLL-UP DOOR	
EFFECTIVE WIND AREA (SQ. FT.) =	NA
ZONE 4 (POSITIVE) =	NA
ZONE 4 (NEGATIVE) =	NA
ZONE 5 (POSITIVE) =	NA
ZONE 5 (NEGATIVE) =	NA
WINDOW	
EFFECTIVE WIND AREA (SQ. FT.) =	7.50
ZONE 4 (POSITIVE) =	24.8
ZONE 4 (NEGATIVE) =	-26.8
ZONE 5 (POSITIVE) =	24.8
ZONE 5 (NEGATIVE) =	-31.3

PRODUCT CATEGORY

PRODUCT CATEGORY	SUB CATEGORY	MANUFACTURER	APPROVAL No. & DATE
STRUCTURAL COMPONENTS	ROOF DECK	CAPITAL METAL SUPPLY, INC.	FL201417-2-R3
STRUCTURAL COMPONENTS	STRUCTURAL WALL	26 GA. CAPITAL RIB ROOF PANEL	12/13/23
		CAPITAL METAL SUPPLY, INC.	FL201482-R3
		29 GA. CAPITAL RIB WALL PANEL	12/13/23
		JELD-WEN	FL6708-4-R16
EXTERIOR DOORS	SWINGING	D DESIGN PRO / SMOOTH PRO FIBERGLASS	10/17/23
EXTERIOR DOORS	SWINGING	JELD-WEN	FL15474-3-R10
WINDOWS	SINGLE HUNG	PGT INDUSTRIES SH-5400	08/31/24
			FL14355-1-R28
			10/15/24

CTP = CONTRACTOR TO PROVIDE APPROVED PRODUCTS THAT MEET OR EXCEED WIND DESIGN PRESSURES.

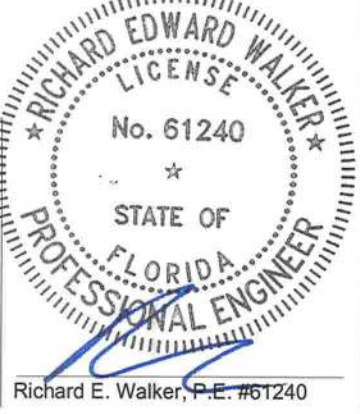
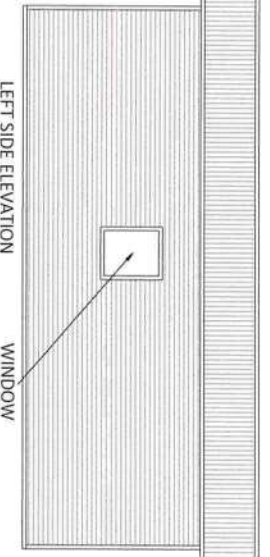
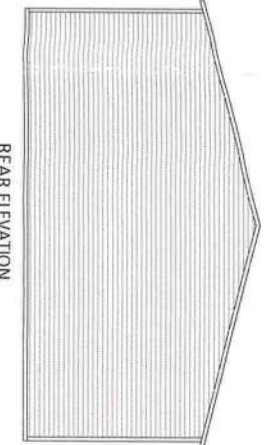
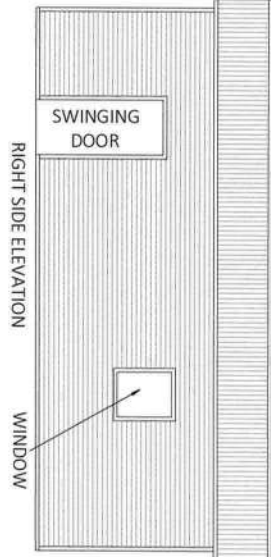
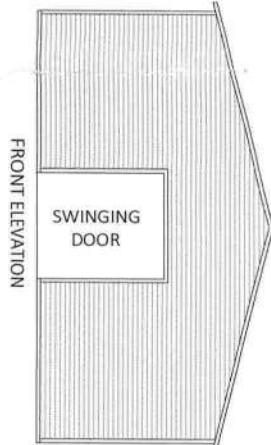


3-D FINITE ELEMENT ANALYSIS PERFORMED STRUCTURE COMPLIES W/ FBC 2023 8th EDITION



Stress S11 MaxMin Diagram (0.6D-0.6Wx)

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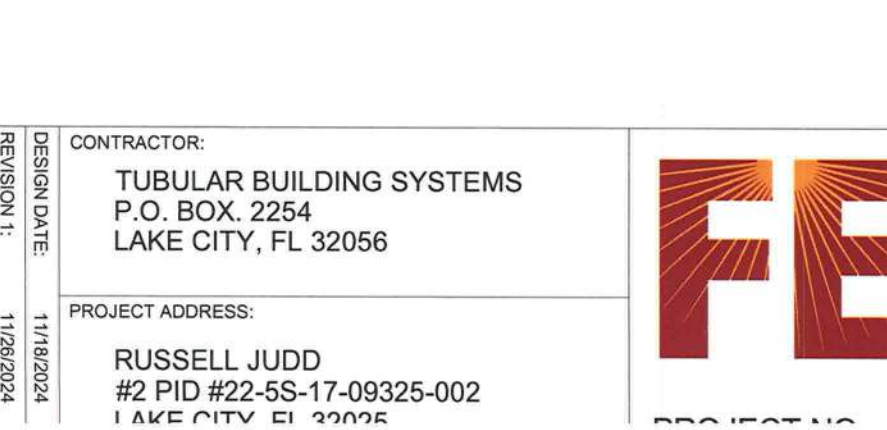
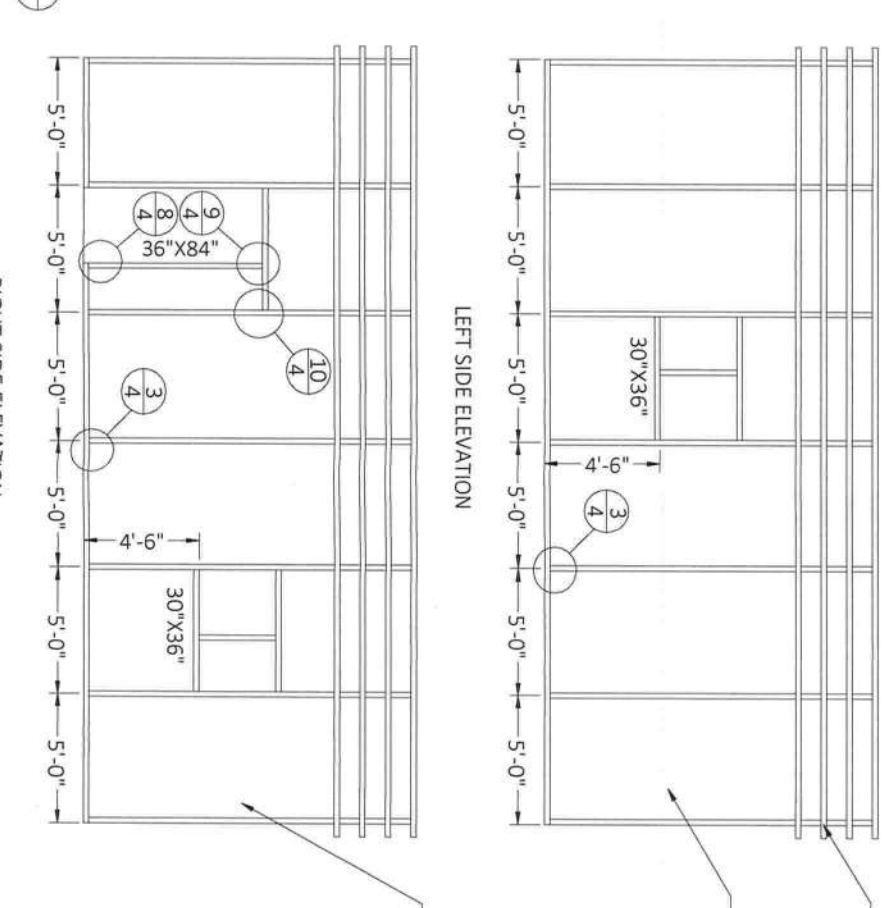
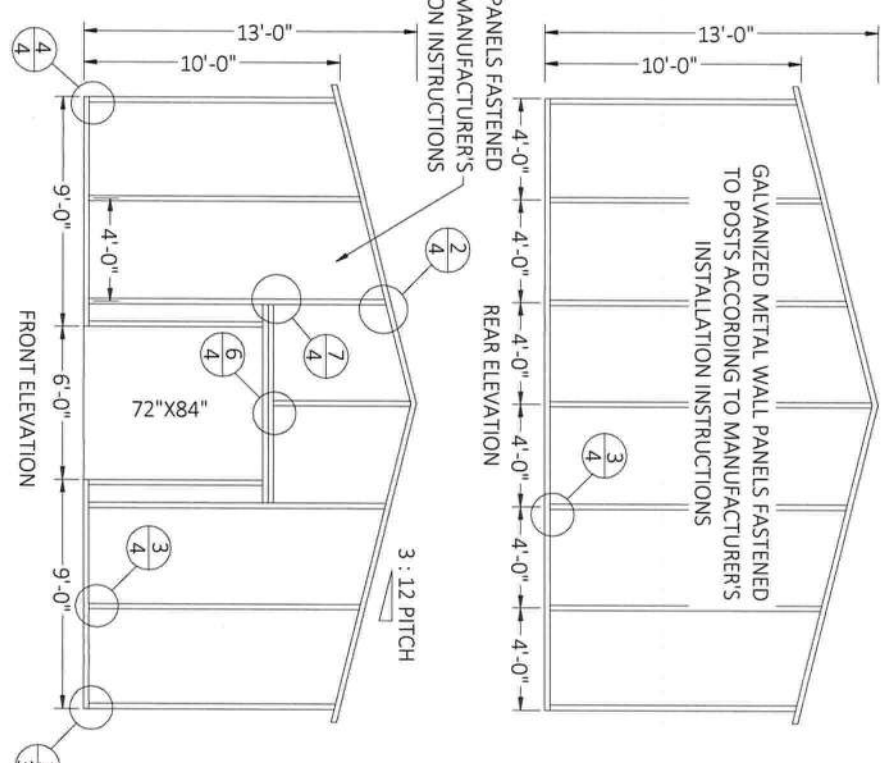
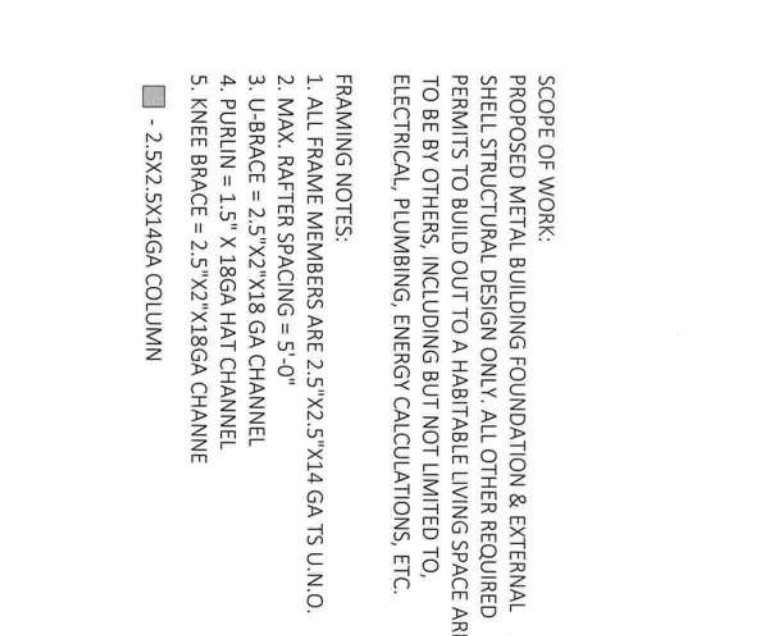
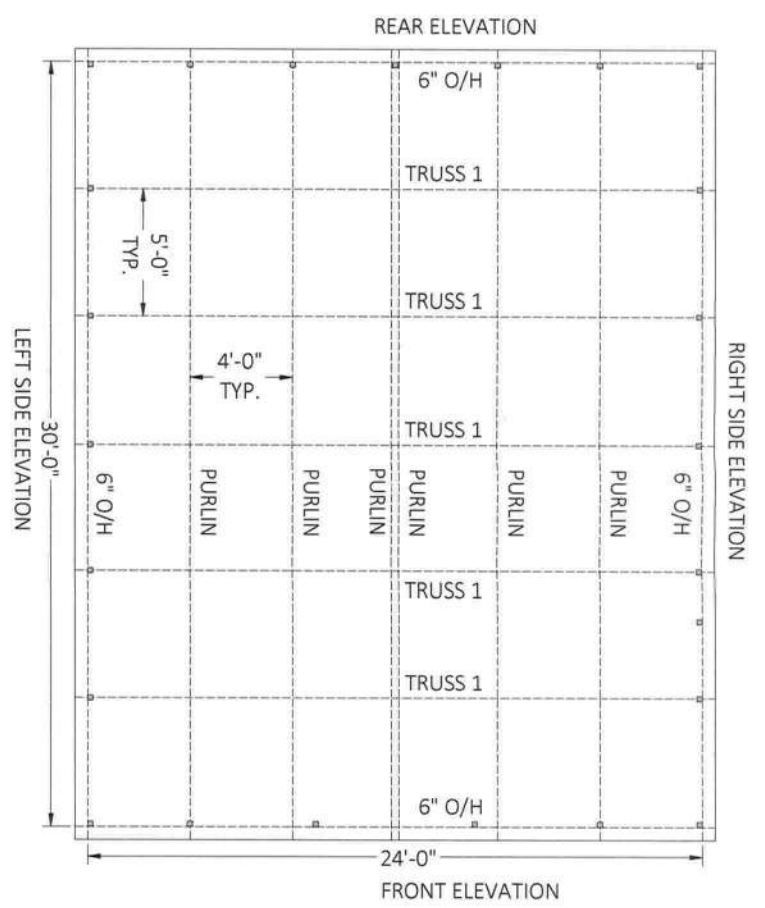
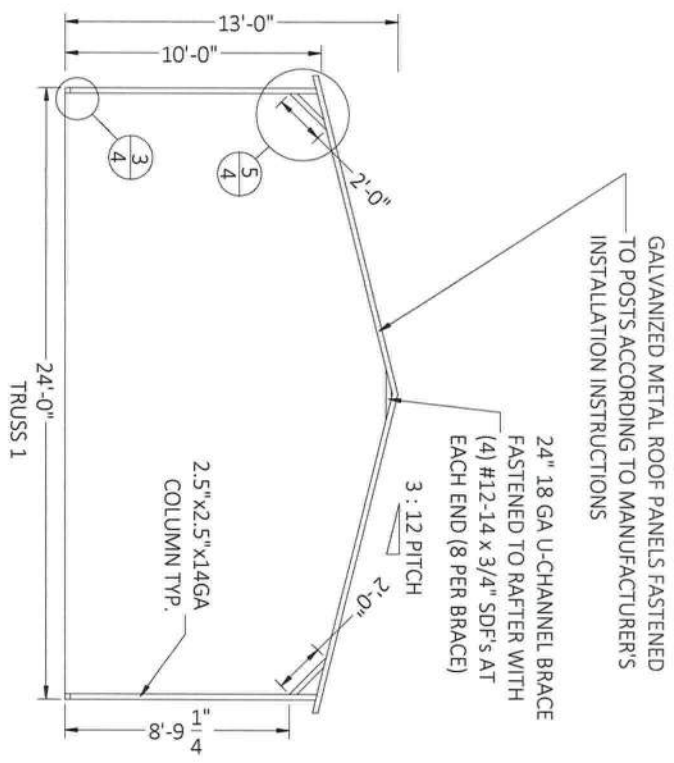


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P.O. BOX. 2254
LAKE CITY, FL 32056
PROJECT ADDRESS:
RUSSELL JUDD
#2 PID #22-5S-17-09325-002
LAKE CITY, FL 32056

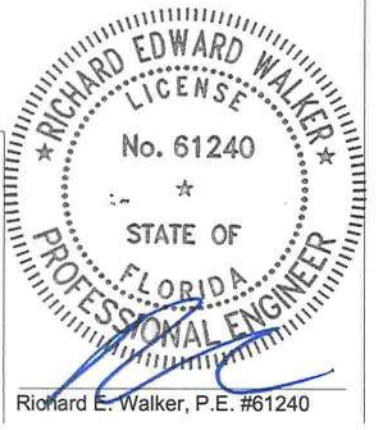
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REVISION 1: 11/26/2024
REVISION 2: DATE
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SCOPE OF WORK:
PROPOSED METAL BUILDING FOUNDATION & EXTERNAL SHELL STRUCTURAL DESIGN ONLY. ALL OTHER REQUIRED PERMITS TO BUILD OUT TO A HABITABLE LIVING SPACE ARE TO BE BY OTHERS, INCLUDING BUT NOT LIMITED TO, ELECTRICAL, PLUMBING, ENERGY CALCULATIONS, ETC.

FRAMING NOTES:
1. ALL FRAME MEMBERS ARE 2.5" X 2.5" X 14 GA TS U.N.O.
2. MAX. RAFTER SPACING = 5'-0"
3. U-BRACE = 2.5" X 2" X 18 GA CHANNEL
4. PURLIN = 1.5" X 18 GA HAT CHANNEL
5. KNEE BRACE = 2.5" X 2" X 18 GA CHANNEL

■ - 2.5X2.5X14GA COLUMN



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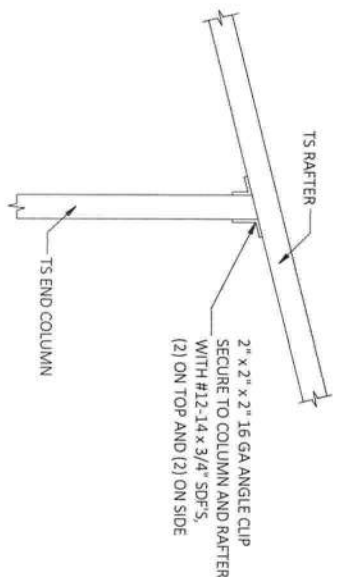
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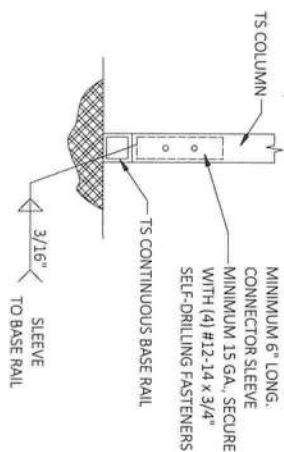
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CONTRACTOR: TUBULAR BUILDING SYSTEMS P.O. BOX. 2254 LAKE CITY, FL 32056	
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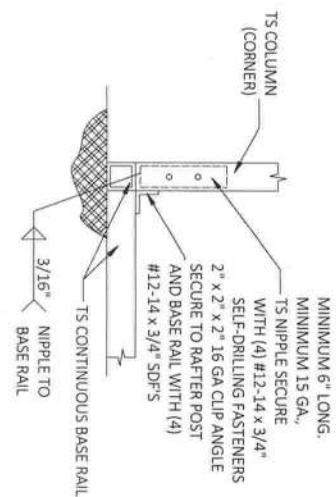
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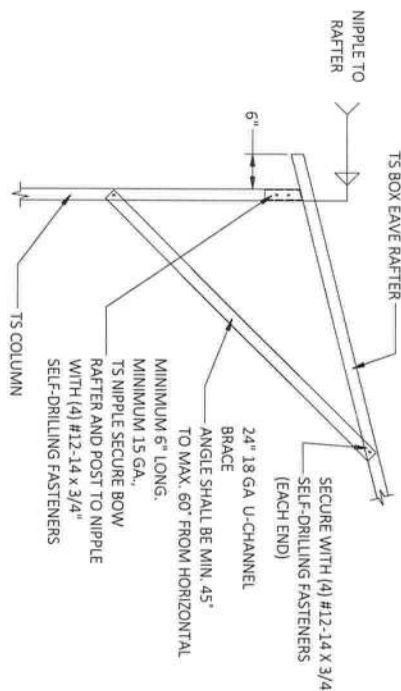
2 END POST/RAFTER CONNECTION DETAIL
SCALE: NTS



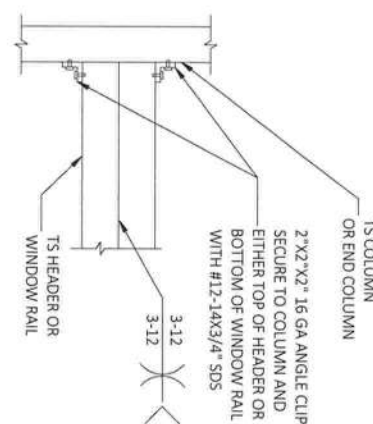
3 RAFTER POST/BASE RAIL CONNECTION DETAIL
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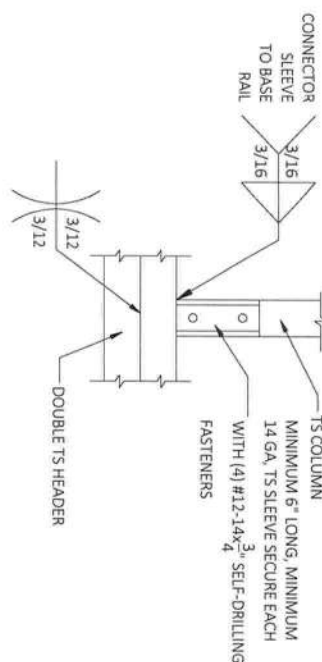
4 END POST/BASE RAIL CONNECTION DETAIL
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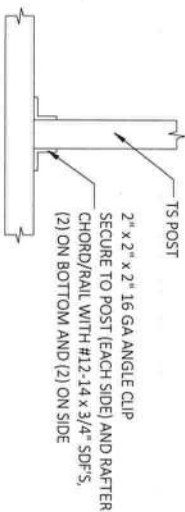
5 BOX EAVE RAFTER/CORNER POST CONNECTION DETAIL
SCALE: NTS



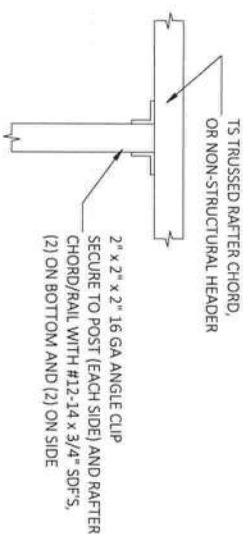
6 DOUBLE HEADER TO COLUMN CONNECTION DETAIL
SCALE: NTS



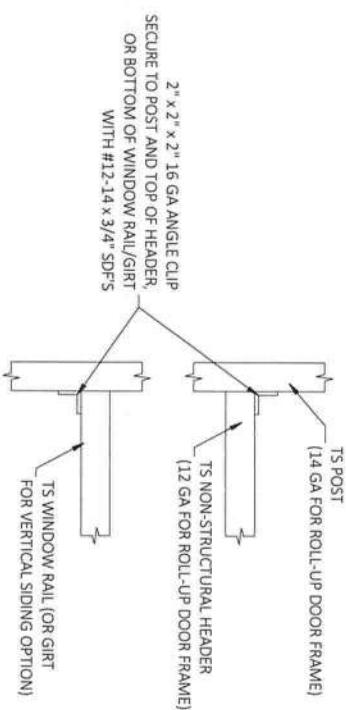
7 COLUMN/DOUBLE HEADER CONNECTION DETAIL
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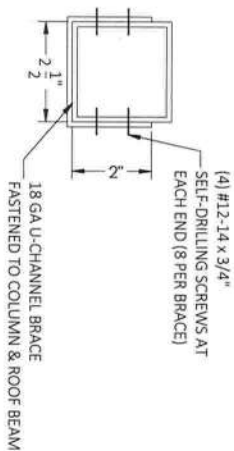
8 POST TO NON-STRUCTURAL HEADER, BASE RAIL OR WINDOW RAIL CONNECTION DETAIL
SCALE: NTS



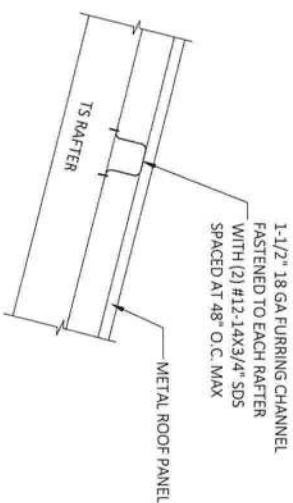
9 POST TO NON-STRUCTURAL HEADER, BASE RAIL OR WINDOW RAIL CONNECTION DETAIL
SCALE: NTS



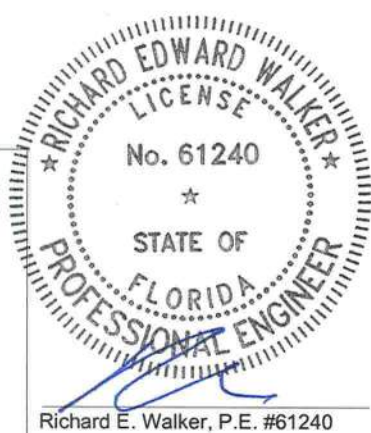
10 NON-STRUCTURAL HEADER OR WINDOW RAIL TO POST CONNECTION DETAIL
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11 BRACE SECTION
SCALE: NTS



12 PANEL ATTACHMENT (ALTERNATE FOR VERTICAL ROOF PANELS)
SCALE: NTS



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